P-ISSN: 2170-1040 | **Journal of Economic Papers**
Volume: 17 – Issue: 01 (2026), P: 24- 41 | **E-ISSN:** 2602-5426

The Reality of Digital Transformation in Algeria in Light of the Network Readiness Index 2024: An Analytical Study

BENZEGHDA habiba [1♦], NEDJAR Hayette [2] SELLAMNA Djahida [3]

[1] University of Jijel (Algeria), Habiba.benzeghda@univ-jijel.dz
[2] University of Jijel (Algeria), h.nedjar@univ-jijel.dz
[3] University of Jijel (Algeria), Djahida.sellamna@univ-jijel.dz

Received: 02/02/2026 **Accepted:** 14/05/2026 **Published:** 31/05/2026

Abstract:

This research paper seeks to reveal the reality of digital transformation in Algeria in light of the Network Readiness Index for the year 2024. We adopted the descriptive-analytical approach to examine and analyze the main indicators stipulated by the Network Readiness Index to measure digital transformation in Algeria.

We reached the conclusion that Algeria is still far from what has been achieved globally, which has led to the emergence of what is referred to as a large digital divide between Algeria and the leading countries in digital transformation.

Keywords: Digital transformation, Network Readiness Index, Algeria.

JEL Classification: D84, A10, M15

♦ Corresponding author

1. Introduction:

In recent times, interest in the topic of digital transformation has increased due to its importance associated with the development of information and communication technology, globalization, global trade, and free trade area agreements. Digital transformation has changed the way services are delivered to the public, including customers and citizens, and everything has become connected to the Internet. Electronic commerce has emerged, such as the eBay website and the Amazon website, which has spread not only in America and European countries, but also in the Arab Gulf countries, and the use of this site is still expanding very rapidly. In addition, currency trading has emerged through digital platforms such as the Forex platform, and the appearance of digital currencies such as Bitcoin, which have come to compete with traditional currencies and even threaten their existence and continuity. Digital transformation has also led to the emergence of electronic payment and virtual banks such as PayPal and Payer, among others, especially smart cities that facilitate human life and organize it in a smooth manner, where machines have come to interact with humans and make decisions that facilitate the daily life of humanity.

In Algeria, digital transformation is no longer an option, but rather an inevitability dictated by current and future challenges. It is a strategic and fateful path for the state, related to all strategic sectors and future foresight. Algeria, like other countries, has hastened toward digital transformation by moving away from traditional administrative processes to the application of digital technologies. This has been reflected in the improvement of public service through the quality of performance, speed of execution, simplification of administrative procedures, and the improvement of the relationship between the individual and the administration.

The extent of engagement in digital transformation is measured according to various indicators. Due to the importance of these indicators in the process of evaluation and assessing the degree of progress along this path, international and regional bodies are concerned with establishing appropriate metrics for this purpose. The Network Readiness Index issued by the World Economic Forum is considered one of the most important measures, distinguished by its comprehensiveness and accuracy in covering numerous fields that touch all aspects of digital transformation. This index covers data from hundreds of countries around the world and ranks them according to their readiness for digital transformation in general, and access

to the digital economy in particular. In order to determine Algeria's position in this field and its international ranking, this paper will undertake an in-depth analytical reading of the Network Readiness Index report for the year 2024 to determine the extent of Algeria's progress in the field of digital transformation.

In this context, this scientific paper comes to answer the following research problem:

What is the reality of digital transformation in Algeria according to the Network Readiness Index report for the year 2024?

This research paper aims to identify digital transformation, shed light on the Network Readiness Index, and also identify the reality of digital transformation in Algeria according to the Network Readiness Index for the year 2024.

The importance of the study lies in the importance of the topic, as digital transformation has great significance due to its role in enhancing the protection of digital data, transparency, ensuring independence requirements, and strengthening trust.

We also adopted the descriptive-analytical approach to read and analyze the data of the Network Readiness Index report for the year 2024, by addressing the following main axes:

- The concept of digital transformation;
- The concept of the Network Readiness Index;
- The reality of digital transformation in Algeria based on the Network Readiness Index report for the year 2024.

2. The Nature of Digital Transformation:

Digital transformation is considered a cumulative process that has been associated with the emergence and development of modern technology since the 1960s, coinciding with the beginnings of the first industrial revolution. Since then, efforts have been directed toward integrating digital technologies into various economic, commercial, and social sectors. With the emergence of the Fourth Industrial Revolution, reliance on digital tools has increased, which has necessitated the presence of a workforce possessing advanced technological skills and capable of adapting to the requirements of automation imposed by this revolution. Providing opportunities for continuous learning and permanent training has become an inevitable necessity to acquire future skills, especially those related to digital competencies (Greenberg, Baron, and Rifai translation, 2010). In this section, the nature of digital transformation will be addressed in order to encompass its most important aspects.

2.1 Concept of Digital Transformation:

The concepts of digital transformation have varied according to the perspectives from which researchers approach it. Some of these concepts include the following:

- Digital transformation refers to the use of new digital technologies, such as computers, mobile phones, social media platforms, and Internet networks, to improve the performance of business organizations and simplify their operations. The concept of digital transformation goes beyond merely digitizing work methods and includes the creation of digital assets that generate value and revenues for the organization. Accordingly, digital transformation represents the changes caused by digital technology in all aspects of human life (Tratkowska, 2019).
- It refers to the changes brought about by digital technologies to create new processes, cultures, and experiences in order to meet changing business and market requirements, and it is considered necessary to build an organization capable of thriving in the digital age (Bouabdellah & Bouabdellah, 2022).
- Digital transformation of business organizations is considered a redesign of these organizations through the digitization of processes. Digital transformation has become an important topic for all organizations worldwide, as it describes the fundamental transformation of the entire business world through the creation of new Internet-based technologies with a fundamental impact on society as a whole. Accordingly, digital transformation is the deliberate and continuous digital evolution of an organization, whether at the strategic or tactical level (Schallmo, Williams, & Boardman, 2017).
- It is the process through which books, manuscripts, newspapers, audio materials, and visual materials are converted into digital file formats that can be handled through computer technology by using scanners or other equipment and devices (Koujil & Ben Zerara, 2022).

From the above, it becomes clear that digital transformation is the use of digital technology as part of work mechanisms with the aim of providing services more quickly and more effectively to beneficiaries. It is a complex and multidimensional issue and one of the major challenges facing all sectors. In this context, the pillars of digital transformation can be identified as follows:

- The organization targeted by digital transformation;

- The extent of changes occurring within the targeted organization;
- The technologies used in the digital transformation process within the targeted organization;
- The expected outcome of the digital transformation process and its impact on the targeted organization.

Through these pillars, digital transformation can be defined as a process aimed at transforming the business model of organizations into a more advanced model through the employment of digital technologies.

2.2 Areas of Digital Transformation:

Digital transformation is divided into the following types (Mohammedi, 2021):

- **Digital transformation of government:** This type focuses on improving the delivery of government services to citizens and simplifying administrative procedures. This is achieved through mobile applications and websites aimed at enhancing ease of access and improving the user experience;
- **Digital transformation of operations:** This type targets improving the efficiency of internal operations within institutions through the adoption of digital technology. It includes process automation and data analysis to achieve operational efficiency and promote continuous improvement;
- **Digital transformation of production and manufacturing:** This involves the use of digital technology to improve production processes and enhance innovation in traditional industries. These efforts include the use of robotics, artificial intelligence, and data analysis in order to achieve higher efficiency and improved quality;
- **Digital transformation of the supply chain:** This aims to improve supply chain management by enhancing shipping and distribution operations. It includes the use of tracking technologies, analytics, and digital communication to enhance efficiency and cooperation with suppliers;
- **Digital transformation of the financial sector:** This type seeks to improve financial services and facilitate banking operations. It includes banking applications, digital wallets, and electronic payment technology with the aim of providing an innovative and seamless financial experience;
- **Digital transformation of education:** This aims to develop the learning experience by integrating digital technology into educational methods. It includes distance

learning platforms, e-learning applications, and the provision of modern digital educational content;

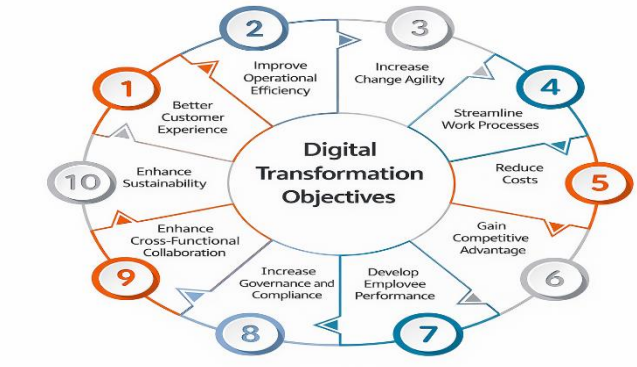
- **Digital transformation of tourism and hospitality:** This focuses on improving the experience of tourists and travelers by facilitating booking and accommodation processes. It includes the use of augmented reality technologies and digital tourism applications to enhance comfort and interaction with visitors;
- **Digital transformation of marketing and sales:** This relies on the use of digital tools to enhance marketing and sales strategies. It includes email marketing, social media, and the online shopping experience to better meet customer needs;
- **Digital transformation of customer experience:** This type aims to improve customer interaction with products and services by providing a personalized and distinctive experience. This is achieved through the use of data analytics and artificial intelligence technologies to meet customer expectations more accurately and effectively.

Digital transformation varies to encompass different sectors and fields, as each type contributes to achieving specific goals related to efficiency, innovation, and improving the user or customer experience in line with the requirements of the modern digital age.

2.3 Objectives of Digital Transformation:

The objectives of digital transformation revolve around development and the saving of time and effort, which can be summarized as follows:

Fig. 01: Objectives of Digital Transformation



Source: (Bakkah, 2025)

- **Better customer experience:** All digital transformation efforts aim to achieve customer satisfaction, which can be attained by ensuring a successful customer experience based on the application of all digital transformation standards. This helps in the following:

  - Enhancing the quality of products or services;
  - Ensuring that customers derive maximum benefit from products;
  - Providing full support by employees to assist customers, thus achieving customer satisfaction and increasing the number of customers, which leads to improving brand reputation.
- **Improving process efficiency:** Digital transformation contributes to reducing the steps of practical digital learning, especially by automating certain stages or by linking some data to eliminate silos and developing data management. This increases employees' productive efficiency, reduces human errors, and thus delivers high-quality products and services to customers. Digital transformation also enhances process efficiency through the development of machinery and equipment in manufacturing, improving production and distribution of products, in addition to providing training opportunities for employees that help them develop their work performance.
- **Increasing the ability to change:** The digital landscape in markets is constantly evolving, which increases customer expectations that may change over short periods. This requires companies to have a rapid-change strategy to keep pace with fast technological development.

  Therefore, organizations must avoid using complex legacy systems and rely on new technologies to free data from silos, such as cloud computing and the Internet of Things, which facilitates mobility between processes and new systems.
- **Facilitating work procedures:** Digital transformation helps improve work procedures by simplifying complex tasks and operations, which raises the overall level of the company and increases the competitive spirit among teams within the organization. This leads to better service delivery to customers and increased productivity. Digital transformation also facilitates work procedures by saving employees' time through digitizing or automating arduous tasks and enabling employees to quickly and easily access the data required to complete their work.
- **Cost reduction:** Although the implementation of modern technological techniques is costly at the outset, it subsequently leads to cost reduction and increased productivity in less time, thereby improving revenues. Digital transformation can also increase sales and strengthen relationships with customers by offering better business propositions,

thus increasing purchasing value and profits. Institutions and companies also rely on digital transformation to reduce costs through several other means, most notably reducing expenditures related to administrative procedures and improving work quality through task and process automation.

- **Gaining a competitive advantage:** Through the application of digital transformation and the use of modern technological techniques, a competitive advantage can be created that customers seek and that attracts employees with high talents and capabilities. This enhances the company's reputation among competitors, differentiates it, and earns customer satisfaction, while also attracting more customers due to the company's good reputation. Achieving a competitive advantage also results from relying on digital transformation to improve the quality of products and services by offering innovative ideas and creative solutions, in addition to meeting customer needs and requirements, as well as thoroughly studying competitors through the analysis of all their data.
- **Developing employee performance:** Digital transformation improves employee performance alongside facilitating work procedures, as it reduces administrative tasks, allowing employees to focus on more complex duties. This encourages employees to develop themselves, increases their satisfaction, and strengthens their desire to remain in their jobs. Digital transformation also contributes to developing employees' work through several means, most notably providing them with the latest technological tools that enhance work efficiency, strengthening interaction among employees through communication tools, and offering training programs that help improve their performance.
- **Increasing governance and compliance:** Digital transformation facilitates compliance with the principles and regulations of information systems governance related to work and enhances the ability to keep pace with them. This relies on the relevant tools, thereby ensuring access to the necessary information for the compliance process. Digital transformation also enhances compliance by improving management performance in dealing with potential legal risks and relying on tools that improve compliance, such as quality standards compliance tools.

- **Enhancing team collaboration:** When digital transformation is applied, the need for collaboration among teams within the company and with customers increases. Therefore, digital transformation provides new tools that facilitate communication, helping to exchange ideas and benefit from experiences and skills. This increases productivity, supports the generation of new ideas, and enhances the efficiency of customer support.
- **Enhancing sustainability:** One of the objectives of digital transformation is to develop sustainability through its technologies and tools, by enabling institutions and companies to develop sectors such as agriculture, transport, and production, achieve maximum benefit from natural resources such as energy, and develop procedures aimed at environmental preservation, such as using the latest technologies in waste disposal.

2.4 Digital Transformation Technologies:

New and diverse technologies are emerging at an accelerating pace. According to many researchers in the field of information and communication technology, hardly six months pass without the appearance of new technologies and innovations. The most important digital transformation technologies are presented in the following table:

Table. 01: Digital Transformation Technologies

Technology	Importance
Artificial Intelligence (AI)	Innovation and growth, improving user experience, prediction, and decision-making.
Cloud Computing	Data storage, development and rapid deployment of applications and technical services.
Blockchain	Security, protection, privacy, and enhancing electronic transparency.
Cybersecurity	Protection of physical and informational assets.
Virtual Reality (VR)	A computer-designed environment that uses interactive technologies to create enhanced and engaging user experiences.
Big Data	Forecasting and gaining deeper insights into business, customers, and stakeholders.
Internet of Things (IoT)	Collecting data and remote monitoring.
Robotics	Enhancing operational efficiency, supporting and replacing human labor in high-level, dangerous, or strenuous tasks.
Augmented Reality (AR)	Helping workers improve productivity and quality; enabling more accurate knowledge transfer, training processes, and strengthening customer and service support.

Customer Relationship Management (CRM)	Ensuring better communication with the target audience.
Content Management Systems (CMS)	Enables creating and managing websites for organizations and mobile applications.

Source: Prepared by the researcher based on: (Laaraj Moujahid, 2021), (Hannas, 2024), (Zamoura, 2023/2024).

3. The Nature of the Global Network Readiness Index:

The indicators developed by international and regional organizations to measure progress in information and communication technology have diversified. We find what are known as partial measures, such as infrastructure indicators that include, for example, the number of telephone lines per 100 inhabitants, among others. We also find composite indicators such as the Digital Access Index (DAI), the Information Technology Development Index (IDI), in addition to digital divide measures. In this study, we will use an important index, namely the Network Readiness Index issued by the PORTULANS Institute.

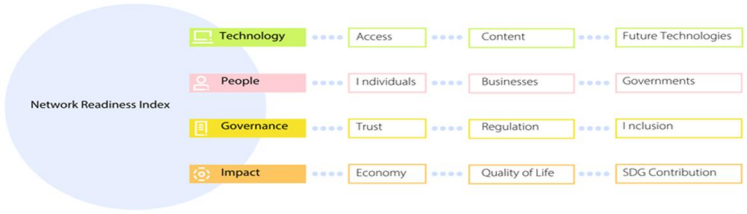
3.1 Definition of the Network Readiness Index (NETWORK READINESS INDEX):

The Network Readiness Index is one of the leading global indicators in the application and use of information and communication technology (ICT). It helps policymakers, business leaders, academia, and civil society to assess technological progress and set an agenda for action to achieve more inclusive and sustainable growth in the digital age. It also measures countries' ability to benefit from information and communication technology to increase competitiveness and well-being, and it examines many dimensions within the framework of the digital economy. It was created by the World Economic Forum and the World Bank and was first introduced in 2002 (Menad Boulennouar, Sayeh, & Meskini, 2021). The Network Readiness Index has also been defined as a set of basic requirements to support the building of an information society, measuring the readiness of society itself for such a transition and its ability to benefit from information and communication technology.

3.2 Dimensions of the Network Readiness Index:

The Network Readiness Index, in determining the degree to which countries benefit from information and communication technology, is based on 58 variables distributed across four sub-indices for 133 countries (according to 2024 statistics). This is illustrated in the following figure:

Fig. 02: Dimensions of the Network Readiness Index



Source : (Portulans Institute, n.d.)

Figure (02) illustrates the main and sub-pillars of the Network Readiness Index, which will be detailed through their measurement indicators as explained below:

3.2.1 Technology Pillar:

This is the first pillar of the Network Readiness Index and includes the following:

- **Access:** Measured based on mobile phone tariffs and prices, mobile subscription density, the population covered by at least a 3G network, international Internet bandwidth, and Internet access in schools;
- **Content:** Among its most important measurement indicators are mobile application development, scientific publications related to artificial intelligence, and Internet domain registrations;
- **Future technologies:** Includes the degree of adoption of and investment in emerging technologies, as well as spending on computer software.

3.2.2 People Pillar:

It is divided into the following sub-indicators:

- **Individuals:** Measured through domestic mobile broadband Internet traffic, ICT skills within the education system, use of virtual social networks, enrollment in higher education, adult literacy rate, and concentration of artificial intelligence talent;
- **Business sector:** Measured according to the following indicators: companies owning a website, knowledge-intensive employment, annual investment in telecommunications services, and business expenditure on research and development;
- **Governments:** Includes online government services, publication and use of open data, government promotion of investment in emerging technologies, and government expenditure on research and development.

3.2.3 Governance Pillar:

Includes the following sub-indicators:

- **Trust:** Measured through secure Internet servers, cybersecurity, Internet access to financial accounts, and online shopping;

- **Regulation:** Includes regulatory quality, the ICT regulatory environment, regulation of emerging technologies, e-commerce legislation, and privacy protection under the law;
- **Inclusion:** Includes e-participation, the social and economic gap in the use of digital payments, availability of local online content, and the gender gap in Internet use.

3.2.4 Impact Pillar:

Represented by the following sub-indicators:

- **Impact on the economy:** Measured through the share of high- and medium-high-technology manufacturing, high-technology exports, patent applications under the Patent Cooperation Treaty, domestic market size, and exports of ICT services;
- **Impact on quality of life:** Measured through the contribution of technology to happiness levels, freedom to make life choices, income inequality, and healthy life expectancy at birth;
- **Contribution to achieving the Sustainable Development Goals:** Measured by the contribution of technology to good health and well-being, quality education, women's economic opportunities, affordable and clean energy, and sustainable cities and communities.

4. The Reality of Digital Transformation in Algeria According to the Network Readiness Index Report for the Year 2024 – An Analytical Study –

4.1. Policies Supporting Algeria's Orientation Toward Digital Transformation:

Since the beginning of the second millennium, Algeria has sought to keep pace with developments in the field of information and communication technology by focusing on the development of infrastructure through several projects and programs, including the following:

4.1.1. The Electronic Algeria 2013 Project:

In 2009, Algeria launched the initiative known as "Electronic Algeria 2013," which aims to modernize public administration, bring it closer to the citizen, and work on digitizing public services;

4.1.2 .The National Agency for the Development of Digitalization (ANDN):

It was established through a presidential decree issued in Official Gazette No. 74 dated December 8, 2020. The decree includes 32 articles related to the missions, powers, organization, and functioning of the body. It is a public institution of a special nature that

enjoys legal personality and financial independence and is subject to the supervision of the Prime Minister. Among its most important tasks are the following:

- Designing the elements of the national strategy for digital development and submitting recommendations to the government in consultation with ministries, bodies, economic sectors, and civil society;
- Assuming responsibility for ensuring follow-up on implementation and coordinating the work of ministries, agencies, and institutions in the field of digitalization, completing foresight research related to digital developments, ensuring technological vigilance, and giving opinions on any legislative or regulatory measure in the field of digitalization.

4.1.3. The Ministry Dedicated to Digitalization and Statistics:

Among its tasks are the following:

- Establishing the foundations of digital transformation based on a comprehensive and integrated system and allocating an independent administration at the ministerial level for each administration;
- Allocating a standalone ministerial department;
- Examining the current state of digitalization and determining the level of digitalization in public administrations, then submitting recommendations to the Prime Minister and developing future plans.

4.1.4 .The Algerian Gathering of Digital Actors (GAAN):

It was launched in January 2020 by a group of Algerian companies operating in the digital field. It aspires to bring together a large number of actors in the field of digitalization regardless of their size, level of experience, sector of specialization, or geographical location. It is based on four fundamental objectives: unity, expansion, outreach, and transformation.

4.1.5. Establishment of the High Commission for Digitalization:

It was established through Presidential Decree No. 314-23 dated 20 Safar 1445 AH, corresponding to September 6, 2023. It is a public institution of a special nature under the supervision of the Presidency of the Republic, enjoying legal personality and financial independence. Among its most important tasks are the following:

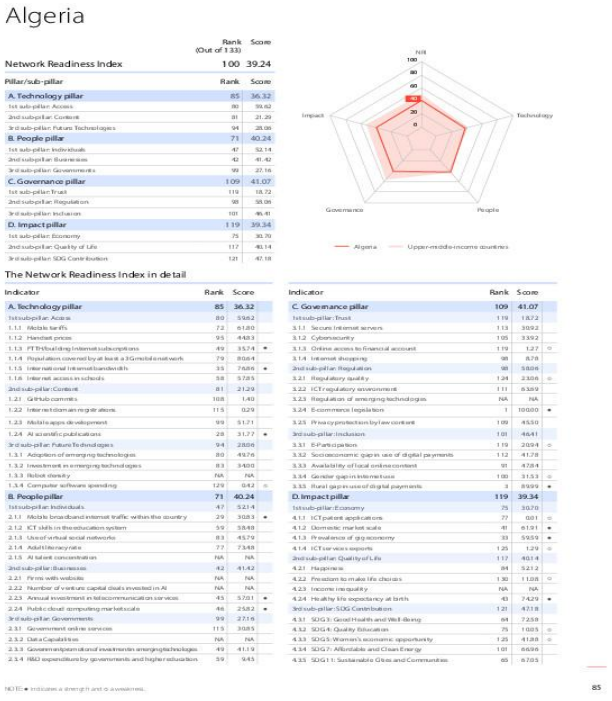
- Monitoring and following up on the plans of sectors concerned with digitalization to ensure their alignment with the national digitalization strategy;

- Evaluating the performance of each sector and proposing the necessary corrections based on performance indicators related to digitalization;
- Proposing regulatory and legal tools and technical solutions to enhance effectiveness and improve digital transformation;
- Examining sectoral programs in the field of digitalization and evaluating their implementation.

4.2. The Reality of the Digital Environment in Algeria in Light of the Network Readiness Index for the Year 2024:

After obtaining a comprehensive overview of Algeria's efforts aimed at supporting the orientation toward digital transformation, this section analyzes what is stated in the Network Readiness Index regarding Algeria's position in the field of digital transformation and the extent to which the index figures reflect this situation. This is illustrated in the following figure:

Fig. 03: Algeria's Ranking in the Network Readiness Index and Its Constituent Sub-Indicators for the Year 2024



Source: (Network Readiness Index, 2024)

The figure above shows that the number of countries included in the Network Readiness Index is 133 countries, one country fewer than the previous year (2023). Among the 133 countries covered by the 2024 index, there are 52 high-income economies, 36 upper-

middle-income economies, 32 lower-middle-income economies, and 13 low-income economies. In terms of regional distribution, Europe tops the list with 41 countries, followed by Africa with 30 countries, Asia and the Pacific with 21 countries, Arab countries with 13 countries, the Commonwealth of Independent States with 6 countries, and 20 countries from the Americas (Bruno & Soumitra, 2024).

Algeria ranked 100th out of 133 countries in the Network Readiness Index for the year 2024. Algeria's rankings vary across the main indicators constituting the Network Readiness Index, as well as across the sub-indicators composing each main indicator. Considering the four main indicators, the People index ranked first in terms of Algeria's international position, with Algeria occupying 71st place globally with a score of 40.24. It is followed by the Technology index at 85th place globally with a score of 36.32, then the Governance index at 109th place internationally with a score of 41.07, and finally the Impact index at 119th place globally with a score of 39.34.

At the level of the sub-indicators constituting the main indicators, as shown in the figure above, the following observations can be made:

- **With regard to the sub-indicators constituting the Technology index:** the absence of the robot density indicator, and a low ranking in the computer software spending indicator at 129th globally with a score of 0.42, followed by the Internet domain registrations indicator at 115th globally with a score of 0.29. As for the scientific publications in the field of artificial intelligence indicator, Algeria recorded a commendable ranking at 28th globally with a score of 31.77, followed by the international Internet bandwidth indicator at 35th globally with a score of 76.86, and then the FTTH Internet subscription packages indicator at 49th globally with a score of 35.74.
- **With regard to the sub-indicators constituting the People index:** the absence of the following indicators: concentration of artificial intelligence talent, companies having a website, number of artificial intelligence investment deals, and finally data capabilities. As for the indicators in which Algeria recorded low rankings, these include the online government services indicator at 115th globally with a score of 30.85, followed by the use of virtual social networks indicator, in which Algeria ranked 83rd globally with a score of 45.79. Algeria recorded advanced rankings in the following indicators: mobile Internet usage rate indicator at 29th globally with a score

of 30.83, followed by the annual investment in telecommunications services indicator at 45th globally with a score of 57.01, in addition to the public cloud computing market size indicator at 46th globally with a score of 25.82.

- **With regard to the sub-indicators constituting the Governance index:** the absence of the emerging technologies regulation indicator, in addition to Algeria recording low rankings in the following indicators: regulatory quality indicator at 129th globally with a score of 23.06, the Internet access to financial accounts indicator at 119th globally with a score of 1.27, the e-participation indicator at 119th globally with a score of 20.94, and finally the gender gap in Internet use indicator at 100th globally with a score of 31.53. Algeria recorded advanced rankings in some sub-indicators constituting the Governance index, including: the e-commerce legislation indicator at 1st globally with a score of 100, followed by the digital payments usage gap in rural areas indicator at 3rd globally with a score of 89.99.
- **With regard to the sub-indicators constituting the Impact index:** the absence of the income inequality indicator. As for the indicators in which Algeria achieved low rankings, these include: the freedom to make life choices indicator at 130th globally with a score of 11.08, followed by the exports of information and communication technology services indicator at 125th globally with a score of 1.29, then the women's economic opportunities indicator (Sustainable Development Goal 5) at 125th globally with a score of 41.88, followed by the ICT patent applications indicator at 77th globally with a score of 0.01, and finally the quality education indicator (Sustainable Development Goal 4) at 75th globally with a score of 10.05.

As for the sub-indicators constituting the Impact index in which Algeria achieved reasonably good progress, these include: the prevalence of the freelance economy indicator at 33rd globally with a score of 59.59, followed by the domestic market size indicator at 41st globally with a score of 61.91, in addition to the healthy life expectancy at birth indicator at 43rd globally with a score of 74.29.

5. Conclusion:

Algeria has made considerable efforts to support the orientation toward digital transformation, and it has given significant attention to this issue after the COVID-19 pandemic. This was crowned by the launch of the national digital transformation strategy. However, what was revealed by the 2024 Network Readiness Index report confirms that the road is still long for Algeria to achieve digital transformation. A set of results was derived, which can be summarized as follows:

- According to the 2024 Network Readiness Index, Algeria ranked in relatively low positions across the four main pillars, being ranked respectively 119th, 109th, 85th, and 71st in the pillars of People, Technology, Governance, and finally the Impact Index, out of 133 countries included in the ranking;
- According to the 2024 Network Readiness Index, Algeria recorded weaknesses in the following sub-indicators: expenditure on computer software index, online government services index, virtual social networks usage index, regulatory quality index, access to online financial accounts index, e-participation index, gender gap in internet use index, life choices index, ICT services exports index, women's economic opportunity index (Sustainable Development Goal 5), patent applications in the field of information and communication technology index, and quality education index (Sustainable Development Goal 4);
- According to the 2024 Network Readiness Index, Algeria recorded strengths in the following sub-indicators: scientific publications in the field of intelligence index, international internet bandwidth index, FTTH internet subscription packages index, mobile internet usage rate index, annual investment in telecommunications services index, cloud computing market size, e-commerce legislation index, digital payments usage gap in rural areas index, gig economy penetration index, domestic market size index, and finally the healthy life expectancy at birth index;
- According to the 2024 Network Readiness Index, Algeria stood out in the following: the e-commerce legislation index and the digital payments usage gap in rural areas index, ranking respectively 1st and 3rd out of 133 countries included in the classification.

Based on these results, the following recommendations can be proposed:

- Reconsideration of unavailable indicators, through their creation and support;

- Reconsideration of the sub-indicators in which Algeria recorded weaknesses;
- Focusing on future technologies and digital content by supporting investments in telecommunications services and emerging technologies;
- Paying attention to human resources by providing training and qualification for the transition toward the digital economy;
- Providing internet access capabilities in educational centers and adopting advanced digital competencies.

6. Bibliography List:

1- A. Mohamedi. (2021). Financial Inclusion through Electronic Payment: An Analytical Study of the Algerian Experience. Arab Journal of Financial and Banking Sciences, 2(9), 45–63.
2- Ahlam Hannach. (2024). The Experience of the United Arab Emirates in Applying Digital Transformation Technologies in the Fields of Health and Education. Maaref Journal, 19(01), 113.
3- Bakkah. (2025). Knowledge center. Bakkah. https://bakkah.com/ar/knowledge-center/08/10/2025
4- Bouabdellah, M., & Bouabdellah, H. (2022). Digital Transformation Challenges. Algerian Journal of Economy and Finance, 9(2), 72.
5- Bruno, L., & Soumitra, D. (2024). The Network Readiness Index. Portulans Institute.
6- Gerald Greenberg, Robert Baron, & Ismail Rifai (translator). (2010). Managing Behavior in Organizations. Riyadh: Dar Al-Mareekh for Publishing.
7- Ilyas Zakaria Manad Boulennouar, Hamza Sayeh, & Anas Meskini. (2021). The Situation of Algeria in Light of Digital Transformation (A Comparative Study with Tunisia and Morocco within the Network Readiness Index). ResearchGate, 8. Retrieved from http://www.researchgate.net/publication/379872674.
8- Jamal Zamoura. (2023/2024). The Role of Digital Transformation in Improving the Performance of Public Organizations: A Case Study of the Health Sector in Batna Province. Doctoral dissertation, 21– 25. Faculty of Economic, Commercial and Management Sciences, Algeria: University of Biskra.
9- Nassima Laaraj Moujahid. (2021). Digital Transformation Strategy in Light of the COVID-19 Pandemic, with Reference to the Experience of the United Arab Emirates. MECAS Notebooks, 17(4), 344.
10- Network Readiness Index (2024) Report for the year 2024, on the following website: https://networkreadinessindex.org
11- Nour El-Abidine Goujil, & Amina Ben Zarara. (2022). Digitization of Higher Education Institutions in Algeria to Realize E-Government (First edition). Guelma, Algeria: Souham Publishing and Distribution House.
12- Portulans Institute. (n.d.). Knowledge partners. https://portulansinstitute.org/knowledge-partners/
13- Schallmo, D., Williams, C. A., & Boardman, L. (2017). Digital Transformation of Business Models… Best Practice. International Journal of Innovation Management, 21(8).
14- Tratkowska, K. (2019). Digital Transformation: Theoretical Backgrounds Of Digital Change. Management Science, 24(4).